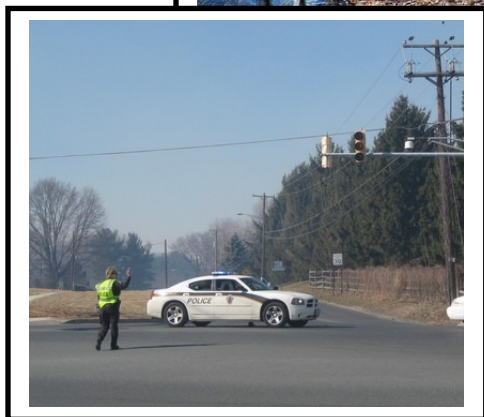


Darnestown Complex Wildland Urban Interface Fire

February 19, 2011



Darnestown Complex
Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



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List of Appenicies

Opertaions Daily Briefing – February 19, 2011
PEPCO Right-of Way Mainteance
Complexity Analysis
Incident Status Report – Initial (very rough)
Incident Status Report – Final
Incident Action Plan 1800-2300

Appendix A
Appendix B
Appendix C
Appendix D
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Introduction

On Saturday February 19, 2011, Montgomery County, Maryland experienced a historic wildland urban interface fire (WUI) that taxed local resources and caused significant loss to personal property, infrastructure (power), and Maryland State parkland.

By 2100 hours that evening, the incident named the Darnestown Complex scorched an area of five hundred acres, damaged seven structures, destroyed six outbuildings, and threatened over thirty residential units. Law Enforcement evacuated at least eight homes that were threatened. Seven fire/rescue personnel suffered minor injuries and there were no reported civilian injuries.

The morning briefing from the Duty Chief to command staff included emphasis on the National Weather Service forecast which included a high wind warning and a red flag warning. The definition of a red flag warning was included in the operations briefing (see **Appendix A**).

This critical information was imparted during the 07:30 conference call with all on-duty command staff with the expectation to relay it to all stations at the end of the short phone briefing. In addition, the briefing document is emailed to a wide distribution list which includes all on and off-duty command level officers and key staff.

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The official National Weather Service forecast for February 19, 2011:

[High Wind Warning](#)
[Red Flag Warning](#)
[Hazardous Weather Outlook](#)

[Alerts in red and underlined](#)
took the reader to more detailed
information when clicked.

* HUMIDITY...DROPPING TO BETWEEN 15 AND 25 PERCENT.

* WINDS...NORTHWEST 25 TO 35 MPH WITH GUSTS 50 TO 60 MPH.

* FUEL MOISTURE...LESS THAN 8 PERCENT.

Today: Sunny, with a high near 49. Windy, with a northwest wind between 26 and 34 mph, with gusts as high as 60 mph.

Tonight: Clear, with a low around 26. Windy, with a northwest wind 23 to 26 mph decreasing to between 14 and 17 mph.

Regionally, surrounding jurisdictions experienced similar incidents on this date. A fire in the Occoquan Forest (Prince William County) destroyed at least one home and several outbuildings. A boiled water advisory was issued due to loss of water pressure caused from use of water to combat fires in the area. Power and phone service was lost and residents had to be evacuated. A shelter was established at a local fire station.



Interstate 95 was obscured by smoke from a brush fire near Dale Blvd (Prince William County). The high winds made the fire difficult to contain, eventually leading to the periodic closure of the southbound lanes on I-95.

Credit: John Boal/News & Messenger – InsideNOVA.com

Similar events occurred in Prince Georges County and Anne Arundle County where several homes were also lost. Regional resources were taxed and the typical use of mutual aid was running thin. Many of the jurisdictions, including Montgomery County, called back off-duty personnel to staff reserve apparatus.

A note to the reader:

The structure of this document flows from the initial response to fire behavior then back to the expanding incident. This is to give the reader some base knowledge of fuels encountered and the extreme fire behavior encountered by the initial response crews.

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Initial Response

The first 9-1-1 call was received at 09:28 from 9 Indian Grass Ct reporting fire one-quarter mile from his home toward the PEPCO Substation. Additional calls were received from the same neighborhood as well as from others miles away reporting smoke. Residents also reported a loss of power in the area.

At 09:31, a single engine (E722) was dispatched to #9 Indian Grass Court for a brush fire. The unit arrived at 09:39 reporting a large brush fire involving at least 10 acres and requested the full box alarm assignment plus four additional brush trucks. E722 established a water supply by laying a single 4" line up the long driveway (over 600'). The officer on E722 established command at #9 Indian Grass Court then proceeded to initialize a direct attack on the burning grass in the ROW. 9 Indian Grass Court also provided the best access to the PEPCO ROW.

Command was quickly transferred from E722 to C717-C (G. Burns) who arrived as the engine was laying up the driveway. E722 continued to work the left flank and was later accompanied by other units.



Indian Grass Drive looking toward MD Route 118



Fence acting as a fire wall on Indian Grass Dr

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Fuels & Fire Behavior

PEPCO prides itself in meadow restoration and practices a low-mow program on their right-of-ways (See **Appendix B**). Indian Grass, Broom Sedge, Aster and flowering plants are usually found on their Right-of-Ways. The practice creates a habitat for native insects and other wildlife. During the spring and summer months with adequate rainfall, these meadows are lush and green. In winter or times of drought, these same meadows can lose moisture and become dynamic fuels.

The primary fuel in the PEPCO right-of-way is considered GR4 (104), Moderate Load, Dry Climate Grass (Dynamic). Other fuels involved, mainly in the Seneca State Park forest area included TL6 (106), Moderate Load Broadleaf Litter. The Wildland Urban Interface (WUI) in neighborhoods bordering Seneca State Park had either TL2, Low Load Broadleaf Litter, or in the more wooded lots, TL6.

The winds on February 19, 2011 were from the Northwest which was in line with the PEPCO right-of-way. Winds were sustained at least 20 mph with gusts over 45 mph at times. The area of origin was somewhere near the PEPCO substation off Maryland Route 118. After several days of cold, dry weather, the dead fuels had very low moisture content.



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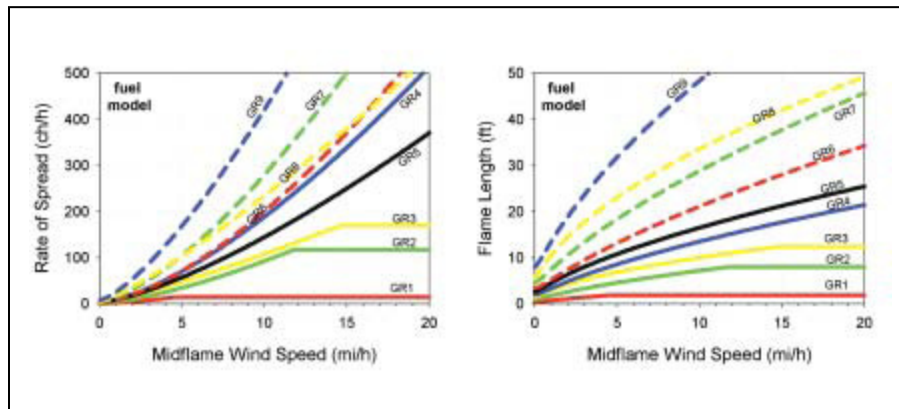
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With a mid-flame wind speed at 20mph, USDA models calculate a rate of spread of 500 chains per hour. A chain is a unit of measure in land survey, equal to 66 feet (20 M) (80 chains equal 1 mile). Commonly used to report fire perimeters and other fire line distances, this unit is popular in fire management because of its convenience in calculating acreage (e.g., 10 square chains equal one acre).

The fire quickly spread southeast toward residential neighborhoods off of Riffleford Road and Maryland Route 28. The writer observed 3-4 foot flame fronts at one time.



Expanding Incident

C717-C had assumed the initial command from E722. While en route, BC703 had ECC place the Frederick Wildland Team on standby. Since the area involved areas of the Seneca State park, ECC was also advised to notify Maryland Department of Natural Resources. BC703 arrived at 09:47. C717-C transitioned over to the battalion buggy and began to build out the command team and incident organization with BC703. Two basic divisions were established. Supervision of the Indian Grass Division was assigned to BC705 (M. Witt) and supervision of the Germantown Road Division was assigned to E734's officer (E. Trice). Responding units were assigned to each division as soon as they were en route.

It was soon clear that the offensive posture was not gaining headway. Command had all units transition to a defensive mode and concentrate on structural protection.



Ancient Oaks North Subdivision

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ECC was soon advising command of calls for brush from the Bondbrook and Ancient Oaks North subdivisions which were well south and east of the original incident.

Units were initially assigned to check Bondy Way in the Bondbrook subdivision off of Maryland Route 28. The unit assigned advised of no immediate danger – only smoke.

Those units were rerouted to Brandon Way Road in Ancient Oak North for reports of threatened structures, and a report of a house on fire.

Command continued to request additional resources and established an initial staging area at Monarch Vista and Riffleford Rd. With additional calls for service for areas south and east, including a possible structure fires in Ancient Oaks North, Command had ECC create a new incident and assign resources. A request for more command officers was transmitted by command.

While enroute to the Indian Grass incident, B709 (with C709 on board) came up on a fire in the PEPCO ROW off of Clopper Road. This was also a well developed fire that was growing exponentially. This incident involved additional areas of Seneca State Park. Command also had ECC initially create a separate incident for this event.

Each incident was initially managed by its' own Incident Commander who assigned Divisions by street name or significant geographic features.



Tanker 731 in the attack mode. A small contingency of units successfully mitigated this attached garage fire on Brandon Way Road and saved the house.



PEPCO ROW looking to the rear of a home on Brandon Way Road.

Homes in Ancient Oaks North range in size from 2,000 sq ft to nearly 4,000 sq ft and are valued between \$500K and \$800K

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C729-D (R. McHenry) was assigned Logistics Section Chief at the initial incident on Indian Grass and was given basic instructions to organize responding tactical resources and anticipate needs for an expanding campaign. The Logistics function was later assigned to F3 Donnie Smith (US&R LOGS) who co-located the equipment staging area, fuel tenders, and responder rehabilitation at Smokey Glen Farms, 16407 Riffleford Road.

At 11:10 the Duty Chief (DC700) arrived and obtained a situation report. Based on the increasing threats in the Wildland Urban Interface, including the report of structures involved, Chief McCarty (DC700) assumed overall command of the incident and further reinforced command and general staff positions. The Duty Chief also briefed the Fire Chief and communicated the need to call back personnel to staff ready reserve units and provide support for the incident.



Large Outbuilding Destroyed on Brandon Way Road

Fire Chief Bowers arrived soon after and gave an initial press briefing.

The Special Operations Chief (A/C Goldstein) notified the Office of Emergency Management and Homeland Security (OEMHS) to activate the EOC around 11:30 (partial activation). Command then worked with the EOC to coordinate logistical support and to recall staffing for 8 engines (2 for Battalions 3 & 5 and 1 each for Battalions 1, 2 and 4). Staffing for an additional 5 engines were added later.

Additionally, the EOC coordinated regional partners to assist with necessary backfill and support.

Once CP727 and additional command support arrived, the incident commander (DC700) directed the area incidents to transition to a complex. This action folded-in the three events (Indian Grass, Brandon Way, and Clopper Lake). This allowed more efficient use of resources and facilitated better logistical support.

During the initial attack phase of the event, each incident commander established objectives which were based on fundamental incident priorities. Once the complex was established, DC700 established broad objectives which are reflected in the IAP (Appendix F).

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Support

The NCR Communications Interoperability Group was deployed and provided tremendous support, including the distribution of radios to assisting and cooperating agencies such as Maryland DNR and providing support to command.

Communications Tech (COMT) – Hartung (NCR709) in the Command Post
Communications Unit Leader (COML) – Nelson (NCR700)



Above - Fire near Clopper Lake

Above Right - Fire breached this home on Brandon Way Road

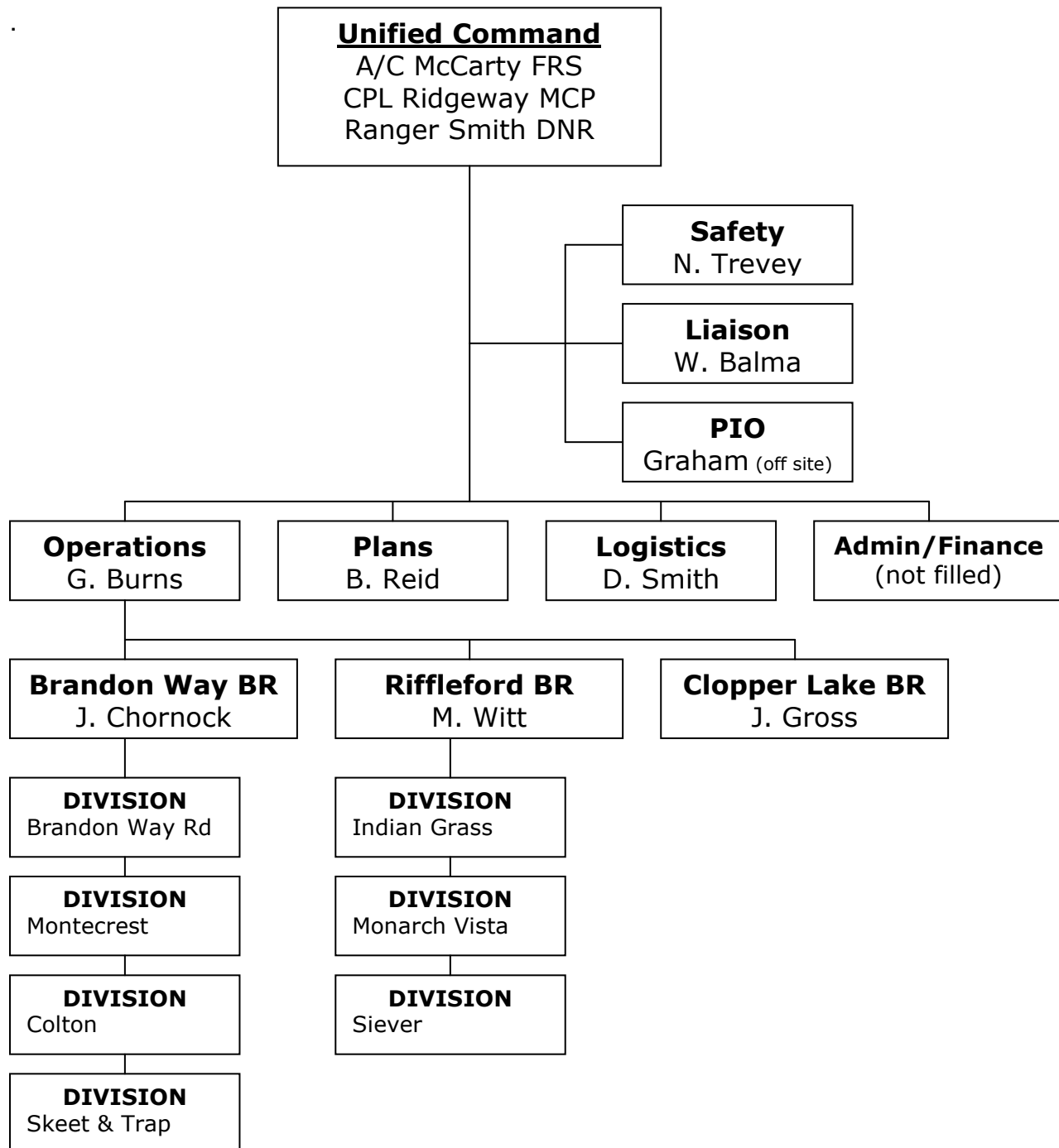
Right - The National Capital Skeet & Trap land, purchased by the Maryland DNR in 1979 and established as part of Seneca Creek Park, ceased shooting operations on October 22, 2003 at the direction of Governor Erlich. The clubhouse, other functional outbuildings and infrastructure were destroyed in the 2/19/11 fire.

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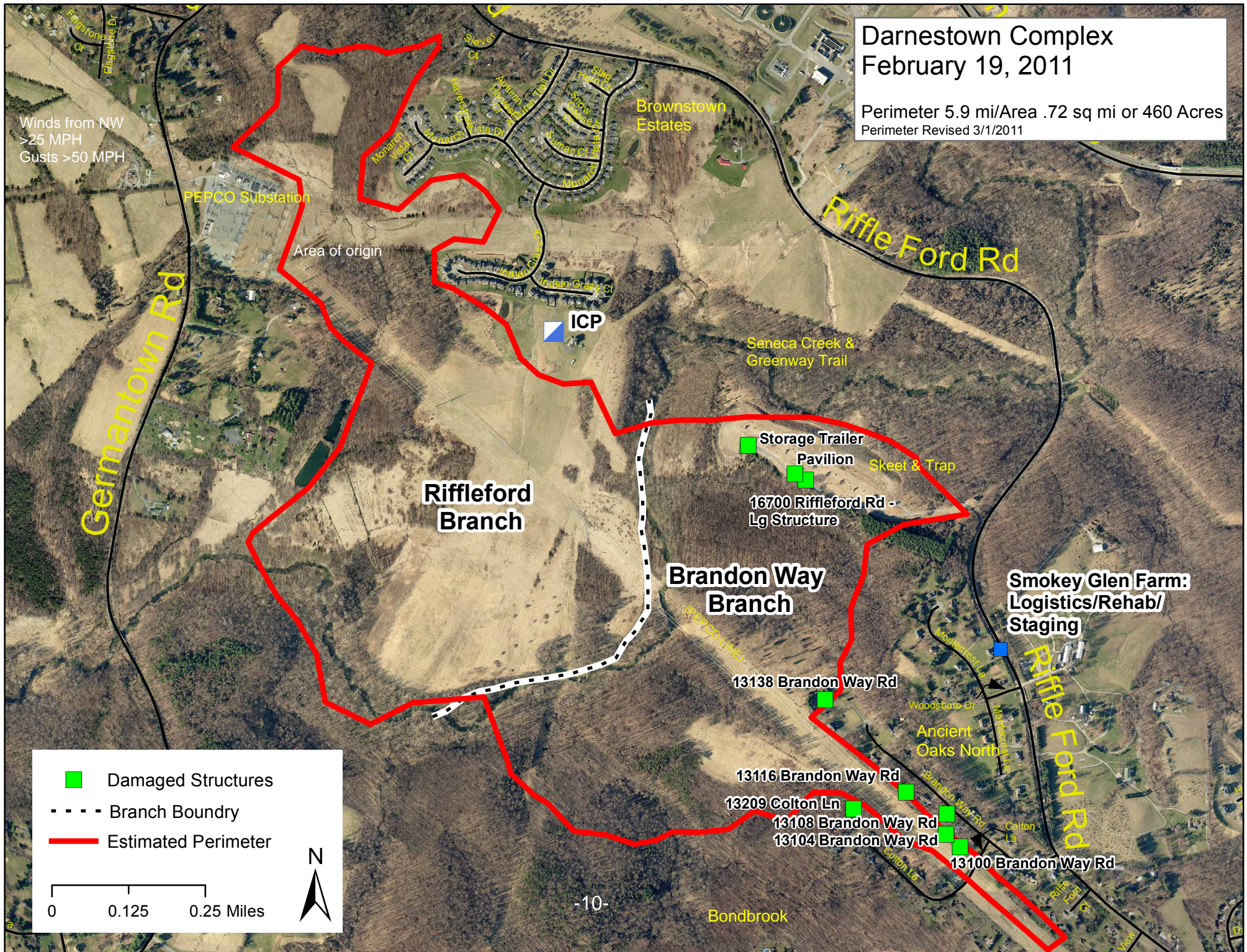
Command Structure – 3 Branch Configuration



Darnestown Complex February 19, 2011

Perimeter 5.9 mi/Area .72 sq mi or 460 Acres
Perimeter Revised 3/1/2011

Winds from NW
>25 MPH
Gusts >50 MPH



Darnestown Complex February 19, 2011

Perimeter 1.1 mi / Area .1 sq mi / 64 Acres

Clopper Lake Branch

Command Post
1.6 Miles

SENECA CREEK
STATE PARK



0

0.25

0.5 Miles

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Department of Public Works and Transportation

Heavy equipment was ordered through Montgomery County Department of Public Works and Transportation. This equipment included wheeled loaders and dump trucks. The usefulness of wheel loaders was extremely limited.

A private contractor appeared at the Command Post with track dozers, stating he was called. The representative did not have a good contact number or name of the person who called him. He was told that he would not get paid. Earlier, command made a transmission that no private resources were authorized.



Track Dozer (not requested) near Skeet & Trap
(Seneca Creek State Park)

Later it was learned that the track dozer was operating near Seneca Creek on Seneca State Park property. This action was not coordinated with Operations. In addition, the operators of these resources lack the training necessary to operate on wildland fires. According to Maryland DNR, they do not contract these types of resources.

Responders and Civilians

Working along with homeowners, many of whom were using garden hoses, MCFRS personnel did an outstanding job protecting structures and reducing property damage. Lines were quickly deployed between the rapidly advancing ground fire and homes. Although fire did get into a few homes and destroy a detached garage, a workshop and several sheds and outbuilding, several homes in the Ancient Oaks North Subdivision were spared thanks to the skilled, quick acting command staff and suppression crews.



Monarch Vista Dr. looking toward Indian Grass Dr. The Command Post was located at the large brick home – upper left.

Homes in this area range from 2,000 sq ft to 5,500 sq ft and are valued between \$500K and \$1.4M.

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Montgomery County Police

Montgomery County Police provided outstanding support. They evacuated a number of threatened structures, provided traffic control and assisted with the control of curious on-lookers who had wandered in to the fire area. They also provided additional security to the logistics area and command post.

Logistics

Logistics was able to work with the Emergency Communications Center and the Emergency Operations Center to obtain and coordinate canteen functions, water, food, port-a-johns, sanitizing stations, etc. with all elements in the complex. Services were consolidated at Smokey Glen Farm (16407 Riffleford Rd) and provided the following:

- Responder Rehabilitation - including ride-on buses for shelter, EMS units for medical, stocked bottled water and food in the form of MREs, hand washing stations, and port-a-johns.
- Ground Support – providing gasoline and diesel tenders. They also packaged and distributed food and water to drop points for each Branch.

Products Distributed:

Water – 35 cases (includes some restocking of canteens)

Snack Foods – 30 cases (24 snacks/case)

MRE's - 120

In addition to MCFRS logistical resources, Paul Davis Restoration and residents from the neighborhoods provided food and water to first responders.



Ancient Oaks North Subdivision - looking northwest. You are over Colton Lane which winds around on the left. Brandon Way Road is to the right of the power lines.

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Major Demobilization and Additional Operational Periods

Due to the number of continued hot spots and the need for perimeter control, the Incident Commander (DC700) determined the need for additional operational periods and had the Planning Section develop an Incident Action Plan (IAP). This IAP would continue with a night operational period and subsequent periods thereafter if required. By 21:00 hours the incident had stabilized and significant tactical resource demobilization was in progress. The Complex was contracted from a Branch organization to three divisions with minimal resources assigned to patrol the perimeter over night. One Battalion Chief as the IC would manage specific resources kinds/types per division, which included:

- 2 Engines (with 1 unit officer as the DIVS)
- 1 Brush Truck
- 1 Tanker
- 1 Ambulance

With a fire of this speed and magnitude, we were very fortunate. Seven firefighters sustained minor injuries but did not require hospitalization. There were no reported civilian casualties. Structural property loss is estimated at \$500, 000. Environmental damage on Seneca State Park land, including the damage caused by resources that were not requested has not been calculated. PEPCO also experienced damage to a "Cable Pole." A cable pole takes 69,000 volt aerial line down to the ground and ultimately voltage is reduced to 13,000 volts for distribution. The damage was significant and the total cost is unknown.

The cause of the initial fire off of Indian Grass Court that spread to the Ancient Oaks North Subdivision remains undetermined. When fire investigators returned to the area of origin (near the PEPCO substation) they found piles of debris, someone riding a small trail bike near the area, and someone walking through smoking a cigarette. Even though some residents reported a possible transformer fire, the area has no above ground transformers.

The cause of the fire near Clopper Lake was the result of a tree coming down on a 69,000 volt power line which started the fire.

A Maryland Department of Natural Resources representative returned on February 20th to assess, advise and coordinate any activity on State property. Resources made significant progress on Sunday 2/20 hitting hot spots and providing for complete extinguishment. The last unit cleared at 20:27 hours on 2/20 around 35 hours after the initial dispatch.

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On March 3, 2011 at 1900 hours, Fire Chief Bowers hosted a community meeting at Quince Orchard High School. Residents from the Ancient Oaks North and Brownstown Estates interacted with Fire/Rescue, Councilman Rice from District 2 and Mr. Subin representing the County Executive.

After Action Comments

What went well and what needs improvement.

Quotes from company officers are in italics. Recommendations (if provided) are in dark blue bold print.

For a structural firefighting organization, all personnel performed extremely well with this Wildland Urban Interface (WUI) incident. The County has experienced red flag warnings in the past but most personnel do not know the true definition or how to prepare and react to extreme fire behavior in the wildland environment. They also feel that significant wildland fires are ones you see in western states and that something of that magnitude could never occur here.

What Went Well

- The crews who responded did a very good job with the challenges we were faced with from start to finish. Personally my group from Station XX along with E7XX's crew work extremely well. This team effort helped ensure a more positive end to the rapid spreading fire. They worked hard for an extreme amount of time without question. I was very proud of all who were on the Incident. Career, Volunteer, Mutual aid and interagency. I saw a lot of working together to achieve the best possible outcome.*
- The command structure seemed to work well from my end, with just a few moments of frustration. Some of this I don't know the answer to, but I believe the Incident command did well with what they were facing. The one big concern is I don't believe there was good accountability and rehab of personnel, but I think that's was not from a lack of trying, it was just how the events played out.*
- Major support and assistance from the homeowners in the area.*
- Good use of NCR Radio Cache to get Forest Service personnel on working talk groups.*

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-
- *Class A foam works very well with wild land incidents*

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What Went Well (continued)

- *The crews operating used this opportunity to make decisions based on what they faced. There was not a SOP that could have covered this event.*
- *All personnel worked well together, there were no personnel dodging work assigned to them.*
- *Communication between logistics and the EOC were excellent, they were very helpful with obtaining resources needed.*

Obstacles Encountered / Improvement Needed / Recommendations

Preparation

Dispatch

- There was a warning issued that day for high fire risk. The lack of “proactive” dispatch of resources to rural areas worsened the situation. The time delay of needed brush fire equipment significantly hampered efforts to contain the rapidly spreading fire.

It was well known that the National Weather Service had issued a Red Flag Warning for Montgomery County on February 19, 2011. This was reemphasized during the 07:30 conference call. Overall policies should be reviewed to dispatch the appropriate kind and type of resource to the incident. Currently, a single engine company is dispatched for a brush fire.

Personnel at stations with brush trucks or four-wheel drive pumpers typically respond with this apparatus on events known to be off road. In this case, no brush truck was available and only a single engine was dispatched.

With the additional warning, ECC should use appropriate judgment, as they do with other incidents, to bolster a dispatch and front-end load the event. For example, for typical off-road incidents dispatch a brush truck as well as an engine company. For extreme conditions, such as the one February 19, 2011, consider additional resources.

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Obstacles Encountered / Improvement Needed / Recommendations

Preparation

Training

Some in the county, both paid and volunteer have received the necessary training to become certified in wildland firefighting. The stringent requirements require annual recertification, however.

Consideration should be given to properly orient, equip, train, and provide the proper PPE our personnel in wildland firefighting. The didactic portions of S-130, Wildland Firefighter Training and S-190, Introduction to Wildland Fire Behavior, both NWCG Courses for basic wildland firefighting, are available at NFA Online (<http://www.usfa.dhs.gov/nfa/nfaonline/>).

Apparatus and Equipment, and Staffing

- *MCFRS needs to place more 4x4 brush units in the Germantown area of the county. These units need to be equipped with float pumps, Indian brush style cans, chain saws, rakes, leaf blowers, and several hundred feet of forestry line. They should have high pressure pumps and not the volume pumps we currently have. They should have good aggressive off road tires for mud, not the all purpose street tires on many in the county today. Also the county needs to evaluate the need for more 4x4 engines like the E714-B class of pumper. Brush response trailers with jump suits and brush safety equipment. The structural firefighting gear was wearing the crews down. We were lucky it wasn't August or the risk of serious heat related injuries would have significantly increased.*
- *Portable Pumps would have been useful. They can be dropped in streams or ponds to refill brush trucks or portable devices which would save time and improve efficiency*
- *Install winch in receivers – allow winch to be moved front to back.*
- *Obtain forestry backpack pumps – allows supply of 1" attack lines from on-site static sources.*
- *Replace Indian Cans on units – old cans impractical.*
- *Obtain leaf blowers to help clear fire lines quickly.*

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Obstacles Encountered / Improvement Needed / Recommendations

Preparation

Apparatus and Equipment, and Staffing

- *Off-road vehicles outfitted with street tires. Officers assigned to operations and having had years of experience in being assigned to rural areas in the county or certified as Wild land Firefighters have requested that off-road vehicles be outfitted with off-road tires for years.*
- *Minimum staffing of brush trucks should be two personnel.*
- *Brush trucks should be stocked with enough hand tools to accommodate six personnel. In addition to brush rakes, additional tools should be added for fire line construction.*

County apparatus designated as a “Brush Truck” should meet a minimum specification to be truly capable of handling different types of off-road terrain found in the area. This should include specific winch capabilities to free the vehicle, aggressive off-road tires, and a power train capable of handling a variety of soil conditions and terrain. The unit should be stocked with tools and other supplies to accommodate additional “hand-crews” that could be assigned to support an off-road operation.

- *This was a Type 3 Complexity event early. We need to prepare our organization to manage these events.*

Train additional personnel in functional areas other than operations (Logistics, Admin, Planning)

Notification

- *No system in place to call/recall/deploy off duty and admin staff chiefs*
- *No working incident page went out – multiple command staff knew nothing of event*
- *C Shift crews called in at 0430 to staff the 0500 fire watch shift – some stations provided information for the on-coming shift – some did not --- some stations/units did not know what to do / where to go / who to report to.*

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Obstacles Encountered / Improvement Needed / Recommendations

Command, Control and Communications

- *From a command perspective recommend, when multiple talk groups are in use, that each transmission be verbally suffixed with talk group currently in use. Ex. "Command to Brandon Way Branch on 71Gulf" This helps clarify the correct talk group to reply back to.*
- *We were very slow in assigning tactical channels to the divisions. This caused too much communication on 7G. Once the Divisions were assigned their on channel operations went a little smoother.*

When operating on a large geographical incident where divisions are assigned they need to be assigned a tactical channel.

- *Personnel on canteen units tying up air time on operation channel and requesting units for support.*
- *Geographical identifiers changing multiple times for unit officers on foot without the ability to remember units assigned too or removed from their identifier by having the ability to write them down.*

There is a need for better mapping capabilities in command vehicles. Internet with a simple Google map showing satellite images, streets, and topography would have benefited with projections and identifying values at risk. The Altaris map is grossly inadequate.

- *Coordinating strategies and fire attack proved to be extremely difficult as a result of units being on different talk groups and the failure of command to be able to monitor all activities and provide feedback in a timely fashion as fire conditions changed.*
- *There was a need to build out Logistics, Plans, and Admin/Finance.*
- *CP727 is not the proper platform for an incident of that magnitude. If available, we should really set up command in a facility that had infrastructure (phones, network PCs, adequate desk and wall space, etc).*
- *The ordering process should be well defined – using the FEMA Resource definition/kind/type guide for tactical resources. This needs to be driven by operations and EOC needs to be on the same page for resource ordering.*

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Obstacles Encountered / Improvement Needed / Recommendations

Safety

- *Personnel riding on the back and tops of fire unit while traveling to-and-from points of operations*
- *Personnel cutting trees (dead and burning) in high wind condition.*
- *The use of structural firefighting gear during wild land firefighting.*

Seven injuries were documented during this event. Most involved debris in the eyes, minor burns or cuts as well as dehydration and heat exhaustion. PPE needs to be evaluated and personnel must be properly notified and adhere to REHAB requirements established by the IC and Safety Officer.

Personnel need to be properly trained and have appropriate PPE to fall trees. Typically, ONLY the Maryland Department of Natural Resources is authorized to cut-down standing trees – especially on State property.

Liaison

- *A Liaison Officer was needed early to work with DNR / State Parks as well as other cooperating and assisting agencies. It is important to coordinate operations with the State Parks because sensitive areas may require attention. You don't want someone with any equipment tearing up the forest.*

Public Information

- *With an event of this magnitude, there was a need for a PIO to be on site to deal with the media as well as interact with the affected neighborhoods.*

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Obstacles Encountered / Improvement Needed / Recommendations

Operations

Water for firefighting primarily came from hydrants located in the neighborhoods and off of Riffleford Road. In areas off of Maryland Route 118, the use of 3,500 gallon fire department water tankers were used. In any case, 3,500 gallon fire department water tankers were used in various capacities – even in the area with a municipal water supply. In one case, a water tanker came upon a structure fire and began suppression efforts before other units were deployed.

When providing structural protection in the interface, it is best not to anchor an engine to a hydrant for continuous water supply. Units need to remain “mobile” and be prepared to rapidly exit to a safe area in case of extreme fire behavior. Water from hydrants can still be used to refill engines and water tankers.

- *Our structural firefighting mentality got in the way. Crews were not prepared to wait until sufficient resources were assembled to attack the fire. There were times I was on the fire line with no chance of water and too few people with hand tools. Command would assign engine crews to the fire line and the crews then had to walk over a mile to get to their assigned position.*

Take the time to form a firefighting crew with transportation i.e. a Pickup.

- *Multiple fires at multiple locations on one property that involved a lot of hose line management with a very limited amount of manpower to perform the functions of Safe Structural Firefighting. The wind and conditions had the upper hand way before we arrived but luckily we were able to get water on the fire before the fire advanced too far. One other obstacle that was encountered was that we were initially wearing full protective clothing including our SCBA's while fighting this fire because we were prepared to perform an interior attack if needed. Luckily we didn't need to do that but it definitely caused fatigue before we could completely extinguish the fire.*

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



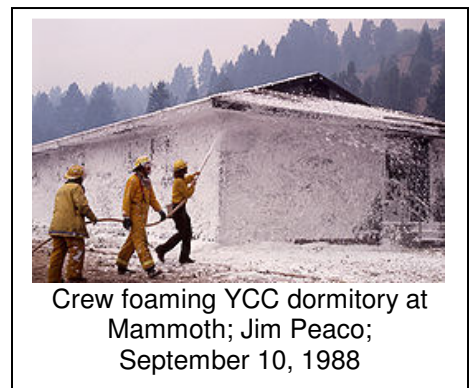
Obstacles Encountered / Improvement Needed / Recommendations

Strategy & Tactics

The initial arriving company deployed a direct attack on the burning grass. During the attack, personnel did operate safely, attacking from the flanks. Command continued with this strategy but soon realized that it was unsuccessful with the wind-driven flames and abundant fuels in the right-of-way. A defensive posture was soon ordered to protect structures. Units assigned to the threatened area in Ancient Oaks North also did an outstanding job with structural protection.

During extreme weather conditions with high winds or a red flag warning, company and command officers should quickly size up the scope and size of a brush fire and adopt a “default to defensive” posture. Quickly survey the area using maps and anticipate fire spread. Triage values at risk (including homes, infrastructure, areas of historical significance, etc) and protect those areas until enough resources are available to safely make a direct attack on the fire. Fast moving fires in low-moisture fuels should be attacked at the flanks.

Based on unit reports or after action findings, it is clear that some units used Class A foam while others are not so clear. Like the ICS, Class A foam and CAFS were born in wild fire. Over twenty years ago, the Los Angeles County Fire Department successfully used Class A foam for wildland fires and became one of the first major departments to use both naturally aspirated foam and compressed-air foam for exterior attacks. CAFS received national attention in 1988 during the Yellowstone Park wildfires when the four-story Old Faithful Lodge was successfully protected by blanketing it with compressed air foam (Darley, 1994).



Company and command officers should be using Class A foam solution for direct attack on burning materials and a dry CAFS blanket applied to exposures including unburned fuels in advance of the fire, structures, or other values at risk.

If brush trucks need to be refilled by a Class-A pumper (as opposed to on-site static sources), consider refilling the tank with foam solution by a CAFS engine. Or, carry a couple of gallons of Class A concentrate or plain dish detergent to achieve similar benefits.

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



Obstacles Encountered / Improvement Needed / Recommendations

Planning

- *Consider training additional personnel in planning functions, including field observation, situation unit, contingency planning, etc.*
- *A GIS Specialist was needed to produce maps and assist with projections and contingencies*

Logistics

- *Need to develop a plan to leave apparatus connected and in place while swapping crews through rehab.*
- *Need designated staging area to return bits of equipment found scattered throughout large scene area.*
- *It seemed that there was no coordinated Rehab for quite some time.*
- *The Staging area did not receive water or food for many hours*
- *Needed Radio Cache sooner*
- *Maintain an EMS Unit in REHAB at all times. This is a LOGS function – we should have two on site with one staying there. I had a couple of people go through with injuries and no EMS unit. A Medical Unit Leader should be assigned.*
- *Many personnel advised they did not get fed or go through REHAB. It is still unclear if this information was transmitted from Logistics through Operations to the Branch Level for proper action.*

Obstacles Encountered / Improvement Needed / Recommendations

Admin/Finance

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



- *Command needed someone to manage equipment use agreements, land use agreements, and facilities. We had private contractors (e.g. Hungerford Bros) showing up saying that someone from the fire department called them. Need to connect with EOC and make sure people arrive with paperwork, an order number and a check-in procedure.*
- *A Claims/Workers Compensation Unit should have been established. There were numerous injuries and a strong potential for claims. We are in the process of working with a few homeowners on collateral damage. This should be a separate unit for large incidents.*
- *P Cards prohibited from purchasing fuel.*

Documentation

It took weeks to complete accurate documentation, including the GIS plotting of damaged structures, process personal property claims, and ensure NFIRS data was complete. As with anything else, some unit officers documented well and some were less than adequate. This includes some that served in a general staff role or as division/group supervisors. There was also an issue in the Firehouse software when similar units were recalled to the incident and the incident spanned over 24 hours. This complicated documentation.

Some personnel need to improve on their documentation. A lot of the After Action Reports were outstanding and the information that was provided should have been in the unit report all along. The IT staff needs to aggressively work on the issues with Firehouse and the duplicate unit and/or multiple operational periods.

In reality, every address that suffered structural damage within the Brandon Way Branch should have been treated as an exposure to the main incident. However, early "separation" into three distinct events and then folding them back into a complex complicated matters. With all the issues encountered above, command staff was basically requested to include as much property loss detail into the body of the incident narrative and record grand totals on the main report.

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



Maryland Department of Natural Resources

The MD DNR Forest Service is mandated by Natural Resources statute § 5-701 with the responsibility and mission of forest fire protection on all lands within Maryland. Annually the Forest Service responds to an average of 660 wildfires burning 3,600 acres throughout the state.

To combat these wildfires the Forest Service maintains a fleet of wildfire suppression equipment including 42 Type 6 & 7 wildfire engines, 19 tractor plow (fire dozer) units with transports, 2 tankers, and 1 bombardier. This equipment is utilized by agency personnel for both initial and extended attack operations on wildfires within the state. The DNR Forest Service is the only state agency that maintains this type of specialized heavy equipment for wildfire suppression. The Forest Service also relies on the volunteer and career fire service throughout the state for initial attack response for wildfires.

The Central Maryland Coordination Center at the Madonna Ranger Station (Hartford County) is the closest equipment cache. They would take some time to mobilize.

MCFRS should engage with managers of state and regional parks to preplan actions in the event of fire or other emergency. MCFRS staff should also routinely meet with Wildland Fire Managers and Rangers from the Maryland Department of Natural Resources.

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



Wildland-Urban Interface – Public Education

MCRFS should include education on homes involving Wildland-Urban Interface. Neighborhoods with wooded lots are numerous and pose a certain risk. The Maryland Department of Natural Resources has printable handouts that can be included with our Safety In the Neighborhood campaign.



Firewise Maryland
Firesafe in the Interface



Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



Summary

Overall, MCFRS responded well to this challenging event. Never losing focus of safety or incident priorities, resources were mobilized to save lives and property to a fast-moving wildfire in an urban interface. Effective partnerships with other county agencies, Maryland DNR, and mutual aid companies were very effective.

Although we can celebrate a success story, it is evident that the organization needs to make an investment and evaluate apparatus, equipment, and training to deal with future events even at a smaller scale. Many homes are intermingled with dense forest and should take this incident as a wake-up call to deal with future threats, including a public education campaign for those homes in the interface.

Respectfully submitted,

Battalion Chief Barry C. Reid, Incident Planning Section Chief

Darnestown Complex Wildland Urban Interface Fire

February 19, 2011

Incident Numbers 11-0020592, 11-0020604, 11-0020646



References

Cavette, C (2001), Bubbles Beat Water, Fire Chief Magazine

FOAM VS FIRE; Class A Foam for Wildland Fires, Second Edition, National Wildland Coordination Group. October 1993, PMS-446-1

Glossary of Wildland Fire Terminology. Retrieved from:
<http://www.nwcg.gov/pms/pubs/glossary/index.htm>

Interagency Wildland Fire Module Field Guide – 2010-2011

Maryland Department of Natural Resources – Wildland Fire Management. Retrieved from:
<http://www.dnr.state.md.us/forests/wfm.asp>

Scott, J. H. and Burgan, R. E. (2005). Standard Fire Behavior Fuel Models: A Comprehensive Set for Use with Rothermel's Surface Fire Spread Model. General Technical Report RMRS-GTR-153 USDA

Wilmoth, J (2009), Affirming Foam, Fire Chief Magazine

Appendix A – Operational Briefing

Operations Briefing: 2/19/2011

Shift: B

Threat Level: Elevated

Special Info

Situational Awareness & CRM: Utilize Both to Improve Safety and Operations, Are you & your shift ready to operate in any environment, operate any tool, operate in the position assigned.

* HUMIDITY...DROPPING TO BETWEEN 15 AND 25 PERCENT.

* WINDS...NORTHWEST 25 TO 35 MPH WITH GUSTS 50 TO 60 MPH.

* FUEL MOISTURE...LESS THAN 8 PERCENT.

A Red Flag Event occurs when critical weather conditions develop which could lead to extensive wildfire occurrence or to extreme fire behavior. Red Flag Events represent a threat to life and property, and may adversely impact fire fighting personnel and resources. Precautionary/Preparedness Actions. FRS personnel should; ensure brush related equipment and apparatus are operationally ready, personnel should anticipate possible extreme fire behavior when operating on brush incidents and take appropriate actions; consider brush as a serious exposure issues during other incidents, personnel should anticipate requesting assistance early and consider MD DNR resources.

Safety Message:

In February 2009, NIOSH released the report “Preventing Deaths and Injuries of Fire Fighters When Fighting Fires in Unoccupied Structures.” The report contends that firefighters may not fully consider information related to building occupants or their likelihood of survival before performing offensive (aggressive) interior operations. It cites numerous cases in which fire crews entered and remained in high-risk fire situations when it was known that no occupants could be rescued or even were present. The report concludes with “the top priority at all fire scenes should be saving and preserving lives—both civilian and the firefighters at the scene

<http://www.cdc.gov/niosh/review/public/141/pdfs/DraftAlertUnoccupiedStructures.pdf>

On-Duty Command Personnel

Duty Chief 700: ; McCarty, M; ;

Batt Chief 701: VRS-Yes; Van Gieson, J.; Kang, B;

Batt Chief 702: VRS-Yes; Deibler, K; ;

Batt Chief 703: VRS-Yes; Reid, B; ;

Batt Chief 704: VRS-Yes; Friedman, P.; ;

Batt Chief 705: VRS-Yes; Witt, M; Close, M;

Safety 700: ; Trevey, N; ;

CMD Support 700: ; Maxey, F; ;

FCE: ; Balma, W; ;

FEI - Day: ; Redding, M; Shackett, J;

Duty Chief 700-B: ; Emmons , S; ; (D)

Batt Chief 701-B: ; ; ;

Batt Chief 702-B: ; ; ;

Batt Chief 703-B: ; ; ;

Batt Chief 704-B: ; ; ;

Batt Chief 705-B: ; McHenry, R; ; (D)

EMS-702: ; Lindsey, R; ;

ECC: ; Virnelson, J; Richards, W;

FEI - Night: ; Redding, M; Olin, B;

Appendix B – PEPCO Right-of-Way Maintenance

<http://www.fosc.org/PepcoThanks.htm>

Though the flyer below specifically references Sligo Creek, another outreach flyer references another 7,000 acres of habitat maintained in PEPCO's 10,000 acres of right-of-way

www.fosc.org/PDF/ROWOutreachFlyer.pdf



PEPCO Meadow First Anniversary

The Friends of Sligo Creek thanks Pepco for establishing a new meadow habitat, starting in 2008, through a low-mow schedule in the powerline corridor on either side of Sligo Creek. In our first summer without mowing, we saw thirteen native wildflowers, ten species of native grasses, and a dozen different butterflies. The beauty of the meadow solicited emails of gratitude from local residents and provided hours of pleasure for hikers, bikers, dog owners, and nature-lovers. See the list of plants and butterflies seen. Enjoy the photos of the flora and fauna in our new Right-of-Way meadow in its first full year!

FLOWERS

Hyssop-leaved boneset, butterfly weed, New York ironweed, yarrow, Joe-Pye weed, goldenrods, Maryland golden-aster, dogbane, early goldenrod, wild potato vine, horse-nettle, fire-weed, and hedge bindweed.

NATIVE GRASSES

Indian grass, purple top, poverty grass, deer tongue, broom sedge, little bluestem, flat-stemmed panic grass, nimblewill, autumn bentgrass, and purple lovegrass.

BUTTERFLIES

clouded sulphur, orange sulphur, common buckeye, cabbage white, pearl crescent, variegated fritillary, meadow fritillary, painted lady, coral hairstreak, and grass skippers.

Butterfly weed in late June



Pearl Crescent Butterfly on Boneset



Appendix B – PEPCO Right-of-Way Maintenance

*Variegated fritillary and Maryland golden-aster on
September 1*



Goldenrod high on the western bank



Clouded sulphur on butterfly weed



Indian Grass



Appendix B – PEPCO Right-of-Way Maintenance

*Sea of broom-sedge, little bluestem, & other grasses
in February*



Moonrise over Indian grass February



Sunset behind purple top and broom-sedge



Dried aster in winter



Appendix C

COMPLEXITY ANALYSIS (INDIAN GRASS INCIDENT)

The complexity analysis should be reviewed periodically to determine the level of management required.

Safety	YES
---------------	------------

Exposure of personnel to unusual hazardous condition	<u>X</u>
--	----------

Responder injuries have occurred	<u>X</u>
----------------------------------	----------

Multiple aircraft are involved or anticipated	
---	--

Potential for public evacuations	<u>X</u>
----------------------------------	----------

Terrain adversely affects tactical capability/limits safety zones	
---	--

Responder performance affected by cumulative fatigue	
--	--

External/Political Factors

Potential for numerous damage claims	
--------------------------------------	--

More than one jurisdiction involved	<u>X</u>
-------------------------------------	----------

Response policy is controversial	
----------------------------------	--

Sensitive public/media relationships	<u>X</u>
--------------------------------------	----------

Lack of cohesive organizational structure	
---	--

Threats

Persons in danger	
-------------------	--

Structures	<u>X</u>
------------	----------

Recreational developments	<u>X</u>
---------------------------	----------

Urban interface (wildland fire/flood)	<u>X</u>
---------------------------------------	----------

Natural resources	<u>X</u>
-------------------	----------

Commercial/Industrial facilities	
----------------------------------	--

Incident Behavior

Uncontrolled fire/hazmat	
--------------------------	--

Exposures threatened/involved	
-------------------------------	--

Appendix C

YES

Personnel/Equipment

X

100 or more personnel assigned

Variety of support personnel or equipment

Responders unfamiliar with local conditions and accepted tactics

Heavy commitment of local resources to logistical support

Two operational periods with limited success

Communications challenges are present

Four or more agencies involved

Total number of elements checked

10

Complexity Analysis Rating:

1 – 6 YES – Current management sufficient. Type 3 IMT should be considered.

7 – 18 YES – Complexity level suggests a Type 3 IMT.

19 – or more YES – Complexity level suggests a Type 2 or higher IMT. Additional analysis may be warranted.

Prepared by: BARRY REID Date: 2/19/11 Time: 1800

Reviewed by: _____ Date: _____ Time: _____

Reviewed by: _____ Date: _____ Time: _____

Remarks/ Decision Rationale:

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name: INDIAN GRASS		*2. Incident Number: 11-0020592	
*3. Report Version (check one box on left): <input checked="" type="checkbox"/> Initial <input type="checkbox"/> Update <input type="checkbox"/> Final		*4. Incident Commander(s) & Agency or Organization MCFRS MCP DPWT	
*5. Incident Management Organization 3		*6. Incident Start date/Time: Date: 2/19/2011 Time: Time Zone: EASTERN	
*7. Current Incident Size or Area Involved (use unit label - e.g., "sq mi," "city block"): 75%		*8. Percent (%) Contained or Completed (circle one): 75%	
*9. Incident Definition: WILDLAND		*10. Incident Complexity Level: 3	
*11. For Time Period: From Date/Time: 2/19 0900 To Date/Time: 2/19 1500			

Approval & Routing Information

*12. Prepared By: Print Name: B. REID. Date/Time Prepared: 2/19/11 1600 ICS Position: PSC		*13. Date/Time Submitted: Time Zone:	
*14. Approved By: Print Name: M. MCCARTY Signature: ICS Position: IC		*15. Primary Location, Organization, or Agency Sent To:	

Incident Location Information

*16. State: MD		*17. County/Parish/Borough: MONTGOMERY		*18. City: GERMANTOWN	
*19. Unit or Other:		*20. Incident Jurisdiction:		*21. Incident Location Ownership (if different than jurisdiction):	
*22. Longitude (indicate format):		*23. US National Grid Reference:		*24. Legal Description (township, section, range):	
Latitude (indicate format):					
*25. Short Location or Area Description (list all affected areas or a reference point): 9 INDIAN GRASS CT				*26. UTM Coordinates:	
*27. Note any electronic geospatial data included or attached (indicate data format, content, and collection time information and labels):					

Incident Summary

*28. Significant Events for the Time Period Reported (summarize significant progress made, evacuations, incident growth, etc.):				
*29. Primary Materials or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc.):				
GRASS				
*30. Damage Assessment Information (summarize damage and/or restriction of use or availability to residential or commercial property, natural resources, critical infrastructure and key resources, etc.): 9 sheds, 2 other out bldgs destroyed. 2 residents not habital, 6 residents damage	A. Structural Summary	B. # Threatened (72 hrs)	C. # Damaged	D. # Destroyed
	E. Single Residences	30	6	2
	F. Nonresidential Commercial Property			
	G. Other Minor Structures		1	11
ICS 209		Page 1 of ____		
* Required when applicable				

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:	INDIAN GRASS	2. Incident Number:	11-0020592
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Additional Incident Decision Support Information

*31. Public Status Summary	A. # This Reporting Period	B. Total # to Date	*32. Responder Status Summary:	A. # This Reporting Period	B. Total # to Date
<i>C. Indicate Number of Civilians (Public) Below:</i>			<i>C. Indicate Number of Responders Below:</i>		
D. Fatalities			D. Fatalities		
E. With Injuries/Illness			E. With Injuries/Illness	2	2
F. Trapped/In Need of Rescue			F. Trapped/In Need of Rescue		
G. Missing (note if estimated)			G. Missing		
H. Evacuated (not if estimated)	8	8	H. Sheltering in Place		
I. Sheltering in Place (note if estimated)			I. Have Received Mass Immunizations		
J. In Temporary Shelters (note if est.)			J. Require Immunizations		
K. Have Received Mass Immunizations			K. In Quarantine		
L. Require Immunizations (note if est.)					
M. In Quarantine					
N. Total # Civilian (Public) Affected:	8	8	N. Total # Responders Affected:	2	2
33. Life, Safety, and Health Status/Threat Remarks:			*34. Life, Safety, and Health Threat Management:		
<p>35. Weather Concerns (synopsis of current and predicted weather; discuss related factors that may cause concern):</p> <p>Winds sustained 25 mph with gusts up to 45 mph during current operation period. Diminishing gusts should drop to 25-30 mph with temperatures in the mid-20's</p>			A. Check if Active		
			A. No Likely Threat <input type="checkbox"/>		
			B. Potential Future Threat <input type="checkbox"/>		
			C. Mass Notifications in Progress <input type="checkbox"/>		
			D. Mass Notifications Completed <input type="checkbox"/>		
			E. No Evacuation(s) Imminent <input type="checkbox"/>		
			F. Planning for Evacuation <input type="checkbox"/>		
			G. Planning for Shelter-in-Place <input type="checkbox"/>		
			H. Evacuation(s) in Progress <input type="checkbox"/>		
			I. Shelter-in-Place in Progress <input type="checkbox"/>		
			J. Repopulation in Progress <input checked="" type="checkbox"/>		
			K. Mass Immunization in Progress <input type="checkbox"/>		
			L. Mass Immunization Complete <input type="checkbox"/>		
			M. Quarantine in Progress <input type="checkbox"/>		
N. Area Restriction in Effect <input type="checkbox"/>					
36. Projected Incident Activity, Potential, Movement, Escalation, or Spread and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour timeframes:					
12 hours: Continue to control line and begin mop up operations 10' into black					
24 hours: Patrol area for flare ups and					
48 hours:					
72 hours:					
Anticipated after 72 hours:					
37. Strategic Objectives (define planned end-state for incident):					

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name: INDIAN GRASS	2. Incident Number: 11-0020592
Additional Incident Decision Support Information (continued)	
38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond. Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts.	
12 hours: 24 hours: 48 hours: 72 hours: Anticipated after 72 hours:	
39. Critical Resource Needs in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:	
12 hours: 24 hours: 48 hours: 72 hours: Anticipated after 72 hours:	
40. Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to: <ol style="list-style-type: none"> 1) critical resource needs identified above, 2) the Incident Action Plan and management objectives and targets, 3) anticipated results. Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.	
41. Planned Actions for Next Operational Period:	
42. Projected Final Incident Size/Area (use unit label - e.g., "sq mi"):	
43. Anticipated Incident Management Completion Date:	
44. Projected Significant Resource Demobilization Start Date:	
45. Estimated Incident Cost to Date:	
46. Projected Final Incident Cost Estimate:	
47. Remarks (or continuation of any blocks above - list block number in notation):	

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:							INDIAN GRASS								2. Incident Number:						11-0020592					
Incident Resource Commitment Summary																										
48. Agency or Organization:		49. Resources (summarize resources by category, kind, and/or type; show # of resources on top ½ of box, show # of personnel associated with resource on bottom ½ of box):														50. # of Personnel not assigned to a resource:	51. Total Personnel (includes those associated with resources - e.g., aircraft or engines - and individual overhead):									
		ENGINE	AERIAL	RESCUE	BRUSH	POLICE	TANKER	WILDLAND CREW																		
MONT CO						32 32												2								
FREDERICK								1 3																		
FAIRFAX																										
CARROL																										
DNR								1 4																		
52. Total Resources						32 32		2 7										2								
53. Additional Cooperating and Assisting Organizations Not Listed Above:																										
ICS 209		Page _____ of _____					* Required when applicable																			

Appendix E

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name: Darnestown Complex		*2. Incident Number: 11-0020592	
*3. Report Version (check one box on left): <input type="checkbox"/> Initial <input type="checkbox"/> Update <input checked="" type="checkbox"/> Final		*4. Incident Commander(s) & Agency or Organization A/C MCCARTY FRS CPL RIDGEWAY POL RANGER SMITH DNR	
*5. Incident Management Organization MONTGOMERY COUNTY		*6. Incident Start date/Time: Date: 2/19/2011 Time: 9:31 Time Zone: EST	
*7. Current Incident Size or Area Involved (use unit label - e.g., "sq mi," "city block"): 595 Acres		*8. Percent (%) Contained or Completed (circle one): 100	*9. Incident Definition: WUI
*10. Incident Complexity Level: 2		*11. For Time Period: From Date/Time: 2/19/2011 9:31 To Date/Time: 2/20/2011 15:00	

Approval & Routing Information

*12. Prepared By: Print Name: Barry Reid Date/Time Prepared: 3/1/2011 9:00 ICS Position: PSC3		*13. Date/Time Submitted: Time Zone:
*14. Approved By: Print Name: _____ Signature: _____ ICS Position: _____		*15. Primary Location, Organization, or Agency Sent To:

Incident Location Information

*16. State: MD	*17. County/Parish/Borough: MONTGOMERY	*18. City
*19. Unit or Other:	*20. Incident Jurisdiction: MONTGOMERY COUNTY	*21. Incident Location Ownership (if different than jurisdiction):
*22. Longitude (indicate format): N39 07.903 Latitude (indicate format): W077 17.360	*23. US National Grid Reference: 18SUJ0212033889	*24. Legal Description (township, section, range):
*25. Short Location or Area Description (list all affected areas or a reference point): SENECA STATE PARK @ RIFFLEFORD RD		*26. UTM Coordinates:
*27. Note any electronic geospatial data included or attached (indicate data format, content, and collection time information and labels):		

Incident Summary

*28. Significant Events for the Time Period Reported (summarize significant progress made, evacuations, incident growth, etc):				
*29. Primary Materials or Hazards Involved (hazardous chemicals, fuel types, infectious agents, radiation, etc.):				
30. Damage Assessment Information Residential areas along the PEPCO ROW and WUI experienced structural property damage, including damage to some homes but mostly outbuilding and other yard property (swing sets, etc). The most significant structural damage occurred to a detached garage and a two-story shop. A large structure at the abandoned Trap & Skeet Clubhouse also lost.	A. Structural Summary	B. # Threatened (72 hrs)	C. # Damaged	D. # Destroyed
	E. Single Residences	30	6	
	F. Nonresidential Commercial Property			
	G. Other Minor Structures		1	6
ICS 209 Page 1 of ____		* Required when applicable		

Appendix E

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:	Darnestown Complex	2. Incident Number:	11-0020592
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Additional Incident Decision Support Information

*31. Public Status Summary	A. # This Reporting Period	B. Total # to Date	*32. Responder Status Summary:	A. # This Reporting Period	B. Total # to Date
<i>C. Indicate Number of Civilians (Public) Below:</i>			<i>C. Indicate Number of Responders Below:</i>		
D. Fatalities			D. Fatalities		
E. With Injuries/Illness			E. With Injuries/Illness		7
F. Trapped/In Need of Rescue			F. Trapped/In Need of Rescue		
G. Missing (note if estimated)			G. Missing		
H. Evacuated (note if estimated)		8	H. Sheltering in Place		
I. Sheltering in Place (note if estimated)			I. Have Received Mass Immunizations		
J. In Temporary Shelters (note if est.)			J. Require Immunizations		
K. Have Received Mass Immunizations			K. In Quarantine		
L. Require Immunizations (note if est.)					
M. In Quarantine					
N. Total # Civilian (Public) Affected:		8	N. Total # Responders Affected:		7
33. Life, Safety, and Health Status/Threat Remarks:			*34. Life, Safety, and Health Threat Management:		
Temporary evacuations occurred during the height of the incident but residents were able to return late evening.			A. Check if Active		
			A. No Likely Threat <input type="checkbox"/>		
			B. Potential Future Threat <input type="checkbox"/>		
			C. Mass Notifications in Progress <input type="checkbox"/>		
			D. Mass Notifications Completed <input type="checkbox"/>		
			E. No Evacuation(s) Imminent <input type="checkbox"/>		
			F. Planning for Evacuation <input type="checkbox"/>		
			G. Planning for Shelter-in-Place <input type="checkbox"/>		
			H. Evacuation(s) in Progress <input type="checkbox"/>		
			I. Shelter-in-Place in Progress <input type="checkbox"/>		
			J. Repopulation in Progress <input type="checkbox"/>		
			K. Mass Immunization in Progress <input type="checkbox"/>		
			L. Mass Immunization Complete <input type="checkbox"/>		
			M. Quarantine in Progress <input type="checkbox"/>		
			N. Area Restriction in Effect <input type="checkbox"/>		
			<input type="checkbox"/>		
			<input type="checkbox"/>		
			<input type="checkbox"/>		
35. Weather Concerns (synopsis of current and predicted weather; discuss related factors that may cause concern):					
Unusual weather affected fire behavior during the incident - winds began to diminish in the evening reducing but not eliminating the threat.					
36. Projected Incident Activity, Potential, Movement, Escalation, or Spread and influencing factors during the next operational period and in 12-, 24-, 48-, and 72-hour timeframes:					
12 hours:					
24 hours:					
48 hours:					
72 hours:					
Anticipated after 72 hours:					
37. Strategic Objectives (define planned end-state for incident):					

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name: Darnestown Complex	2. Incident Number: 11-0020592
Additional Incident Decision Support Information (continued)	
38. Current Incident Threat Summary and Risk Information in 12-, 24-, 48-, and 72-hour timeframes and beyond. Summarize primary incident threats to life, property, communities and community stability, residences, health care facilities, other critical infrastructure and key resources, commercial facilities, natural and environmental resources, cultural resources, and continuity of operations and/or business. Identify corresponding incident-related potential economic or cascading impacts.	
12 hours: 24 hours: 48 hours: 72 hours: Anticipated after 72 hours:	
39. Critical Resource Needs in 12-, 24-, 48-, and 72-hour timeframes and beyond to meet critical incident objectives. List resource category, kind, and/or type, and amount needed, in priority order:	
12 hours: 24 hours: 48 hours: 72 hours: Anticipated after 72 hours:	
40. Strategic Discussion: Explain the relation of overall strategy, constraints, and current available information to: <ol style="list-style-type: none"> 1) critical resource needs identified above, 2) the Incident Action Plan and management objectives and targets, 3) anticipated results. Explain major problems and concerns such as operational challenges, incident management problems, and social, political, economic, or environmental concerns or impacts.	
41. Planned Actions for Next Operational Period:	
42. Projected Final Incident Size/Area (use unit label - e.g., "sq mi"):	595
43. Anticipated Incident Management Completion Date:	2/20/11
44. Projected Significant Resource Demobilization Start Date:	2/19/11
45. Estimated Incident Cost to Date:	
46. Projected Final Incident Cost Estimate:	\$162,565
47. Remarks (or continuation of any blocks above - list block number in notation):	

Appendix E

INCIDENT STATUS SUMMARY (ICS 209)

*1. Incident Name:

Darnestown Complex

2. Incident Number:

11-0020592

Incident Resource Commitment Summary

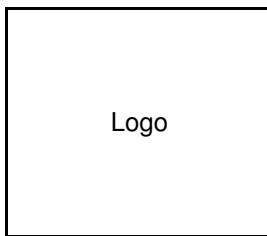
48. Agency or Organization:	49. Resources (summarize resources by category, kind, and/or type; show # of resources on top ½ of box, show # of personnel associated with resource on bottom ½ of box):															50. # of Personnel not assigned to a resource:	51. Total Personnel (includes those associated with resources - e.g., aircraft or engines - and individual overhead):
	ENGINE	AERIAL	RESCUE SQUAD	BRUSH TRUCK	POLICE	TANKER/TENDER	WILDLAND CREW	EMS	LOADER	BACKHOE	DUMP TRUCK	BUS-PASSENGER	ATV	UTILITY	COMMAND		
MONTGOMERY	39 134	7 23	1 3	14 26	32 32	5 5		9 21	6 6	1 1	2 2	3 3	4 5	5 13	16 17	8	299
FREDERICK	1 3			1 2			1 3										7
FAIRFAX	2 8																8
CARROL	1 3																5
MD DNR							1 4										4
FEDERAL	1 4			1 3													7
52. Total Resources	44 152	7 23	1 3	16 31	32 32	5 5	2 7	9 21	6 6	1 1	2 2	3 3	4 5	5 13	16 17	8	330

53. Additional Cooperating and Assisting Organizations Not Listed Above:

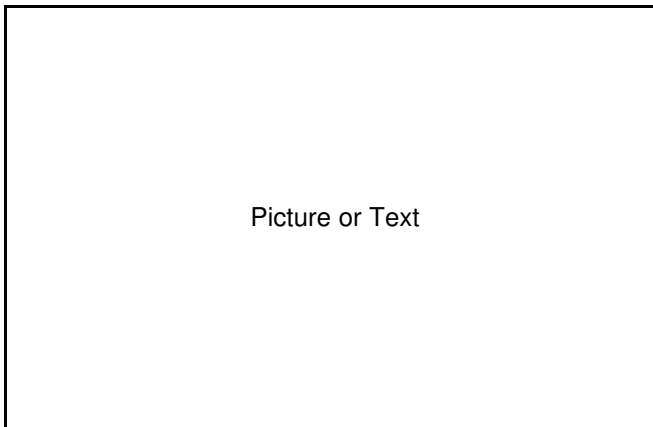
Smokey Glen Farm (Land Use); Hungerford Bros Excavating

INDIAN GRASS

Incident Action Plan



Logo



Picture or Text

Operational Period

From		To
2/19/11		2/19/11
18:00	-	23:00

Appendix F

INCIDENT OBJECTIVES (ICS 202)

1. Incident Name INDIAN GRASS	2. Operational Period	Date From: 2/19/11 Time From: 18:00	Date To: 2/19/11 Time To: 23:00
---	------------------------------	--	--

3. Objectives

 SAFETY OF PERSONNEL AND CIVILIANS

 CONTAIN FIRE AT RT 118 AND WIRES

 CONTAIN FIRE AT RIFFLEFORD RD & BRANDON WAY

 CONTAIN FIRE AT RIFFLEFORD RD

 CONTAIN FIRE AT CLOPPER LAKE

 CONTINUE TO PATROL LINE

4. Operational Period Command Emphasis

 MAINTAIN DEFENSIVE POSTURE, LIMIT ACCESS IN WOOLAND AFTER DARK, EXTINGUISHE SPOT FIRES AS NECESSARY - MAINTAIN FIRE WATCH PAYING ATTENTION TO STRUCTURES AT RISK. ROTATE CREWS AS DIRECTED.

General Situational Awareness

 BE COGNIZANT OF CHANGING WEATHER CONDITIONS (WIND DIRECTION AN SPEED) USE CAUTION AROUND

5. Site Safety Plan Required? ☐ Yes ☒ No

Approved Site Safety Plan(s) Located at:

6. Attachments (check if attached)

<input checked="" type="checkbox"/> ICS 203	<input type="checkbox"/> ICS 207	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> ICS 204	<input type="checkbox"/> ICS 208	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> ICS 205	<input type="checkbox"/> Map/Chart	<input type="checkbox"/> _____
<input checked="" type="checkbox"/> ICS 205A	<input type="checkbox"/> Weather	<input type="checkbox"/> _____
<input type="checkbox"/> ICS 206	<input type="checkbox"/> Forcast/Tides/Currents	<input type="checkbox"/> _____

7. Prepared by: Name: _____ Position/Title: _____ Signature: _____

8. Approved by Incident Commander: Name: _____ Signature: _____

ICS 202	IAP Page _____	Date/Time: _____
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ORGANIZATION ASSIGNMENT LIST (ICS 203)

1. Incident Name INDIAN GRASS		2. Operational Period Date From: 2/19/11 Date to: 2/19/11 Time From: 18:00 Time to: 23:00	
3. Incident Commander and Staff		7. Operations Section	
IC/UC	W. KANG	Chief	
IC/UC		Deputy	
IC/UC			
Deputy		Staging Area Manager	
Safety Officer		a. Branch I	
Information Officer		Branch Director	
Liaison Officer		Deputy	
4. Agency Representative		RIFFLEFORD	C. CLEMENS
Agency	Name	BRANDON	GIZA
PEPCO	SALEXANDER	CLOPPER LAKE	LONGO
WGL	S.SELZER		
RED CROSS	CHRISTI ANDERSON		
DNR	CHRIS SMITH	b. Branch II	
		Branch Director	
		Deputy	
5. Planning Section		c. Branch III	
Chief		Branch Director	
Deputy		Deputy	
Resource Unit			
Situation Unit			
Documentation Unit			
Demobilization Unit			
Human Resources			
Technical Specialists	(name / specialty)	d. Branch IV	
		Branch Director	
		Deputy	
6. Logistics Section			
Chief	D. SMITH		
Deputy	B. JEFFERSON	Air Operations Branch	
Support Branch		Air Ops Branch Dir	
Support Branch Dir.			
Supply Unit			
Facilities Unit		10. Finance Section	
Ground Support Unit		Chief	
Service Branch		Deputy	
Service Branch Dir.		Time Unit	
Communications Unit		Procurement Unit	
Medical Unit		Comp/Claims Unit	
Security Unit		Cost Unit	
Food Unit			
9. Prepared by: Name: _____ Position/Title: _____ Signature: _____			
ICS 203	IAP Page _____	Date/Time: _____	

Appendix F

ASSIGNMENT LIST (ICS 204)

1. Incident Name: INDIAN GRASS		2. Operational Period: Date From: 2/19/11 Date to: 2/19/11 Time From: 18:00 Time to: 23:00		3.	
4. Operations Personnel:				Branch: Division/ Group: RIFFLEFORD Staging Area:	
		Name	Contact Number(s)		
Operations Section Chief:		_____	_____		
Branch Director:		_____	_____		
Division/Group Supervisor:		C. CLEMENS	_____		
5. Resources Assigned:					
Resource Identifier	Leader	Number Persons	Contact (e.g., phone, pager, radio, frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information	
ENGINE 722	CLEMENS	3	7G	ICP	
ENGINE 730B	DOMINICK	3	7G	ICP	
BRUSH 733	KRAFT	2	7G	ICP	
W731	BROWN	1	7G	ICP	
A716	SMOLINSKI	3	7G	ICP	
6. Work Assignments:					
PATROL PERIMETER AND PROVIDE SUPPRESSION AGENT AS NEEDED. PROVIDE STRUCTURAL PROTECTION.					
7. Special Instructions:					
8. Communications (radio and/or phone contact numbers need for this assignment):					
Name	Function	Primary Contact: indicate cell, pager, or radio (frequency/system/channel)			
7G	COMMAND & OPS				
9. Prepared by: Name: _____ Position/Title: _____ Signature _____					
ICS 204 IAP Page		Date/Time: _____			

Appendix F

ASSIGNMENT LIST (ICS 204)

1. Incident Name: INDIAN GRASS		2. Operational Period: Date From: 2/19/11 Date to: 2/19/11 Time From: 18:00 Time to: 23:00		3.	
4. Operations Personnel:				Branch: Division/Group: BRANDON Staging Area:	
		Name		Contact Number(s)	
Operations Section Chief:		_____		_____	
Branch Director:		_____		_____	
Division/Group Supervisor:		GIZA		_____	
5. Resources Assigned:					
Resource Identifier		Leader	Number Persons	Contact (e.g., phone, pager, radio, frequency, etc.)	Reporting Location, Special Equipment and Supplies, Remarks, Notes, Information
ENGINE 735		GIZA	3	7G	BRANDON WAY DR
ENGINE 734		STOKES	3	7G	BRANDON WAY DR
BRUSH 713		WILES	2	7G	BRANDON WAY DR
6. Work Assignments: PATROL PERIMETER AND PROVIDE SUPPRESSION AGENT AS NEEDED. PROVIDE STRUCTURAL PROTECTION.					
7. Special Instructions:					
8. Communications (radio and/or phone contact numbers need for this assignment):					
Name		Function		Primary Contact: indicate cell, pager, or radio (frequency/system/channel)	
7G		COMMAND/OPERATIONS			
9. Prepared by: Name: _____ Position/Title: _____ Signature _____					
ICS 204		IAP Page _____		Date/Time: _____	

Appendix F

ASSIGNMENT LIST (ICS 204)

[illegible]

Appendix F

INCIDENT RADIO COMMUNICATIONS PLAN (ICS 205)

[illegible]

Appendix F

COMMUNICATIONS LIST (ICS 205A)

[illegible]